

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference see form PCT/ISA/220	<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. PCT/FI2004/000691	International filing date (day/month/year) 17.11.2004	Priority date (day/month/year) 18.11.2003
International Patent Classification (IPC) or both national classification and IPC G01W1/08		
Applicant VAISALA OYJ		

### 1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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18 MAY 2005

## Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material:

a sequence listing  
 table(s) related to the sequence listing

b. format of material:

in written format  
 in computer readable form

c. time of filing/furnishing:

contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.

3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/FI2004/000691

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	
	No: Claims	1-17
Inventive step (IS)	Yes: Claims	
	No: Claims	1-17
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

**IAP20 Rec'd PCT/PTO 18 MAY 2006**

**Re Item V.**

**1 The following documents are referred to in this communication:**

D1 : JUNHONG WANG ET AL: "Corrections of humidity measurement errors from the Vaisala RS80 radiosonde - application to TOGA COARE data" JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY AMERICAN METEOROL. SOC USA, vol. 19, no. 7, 1 July 2002 (2002-07-01), pages 981-1002, XP002314018 ISSN: 0739-0572

D2: TURNER D D ET AL: "Dry bias and variability in Vaisala RS80-H radiosondes: the ARM experience" JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY AMERICAN METEOROL. SOC USA, vol. 20, no. 1, 1 January 2003 (2003-01-01), pages 117-132, XP002314019 ISSN: 0739-0572

D3: B. M. LESHT, S.J. RICHARDSON: "The Vaisala RS-80H Radiosonde Dry-Bias Correction Redux" TWELFTH ARM SCIENCE TEAM MEETING PROCEEDINGS, 8 April 2002 (2002-04-08), - 12 April 2002 (2002-04-12) XP002314020 ST PETERSBURG, FLORIDA

**2 INDEPENDENT CLAIM 1**

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. Document D1 discloses a method for correcting humidity measurement errors from radiosonde. On page 984 (first line) of D1, the cause of these errors is identified as the radiational heating of the sensors. The measured value of humidity is corrected by a temperature dependence correction model, where the temperature in question is that of the ambient (indicated as  $t$  in formula 4.3, page 988).

2.2 For analogous reasons to those given at 2.1 above, the subject-matter of claim 1 is likewise not new over document D2. In document D2, the "environmental conditions parameter" of claim 1 can be identified as humidity, which is measured by a second apparatus (a microwave radiometer). The reading from the radiometer is used for a scaling correction of the radiosonde humidity sensor.

2.3 For analogous reasons to those given at 2.1 and 2.2 above, the subject-matter of claim 1 is likewise not new over document D3. In document D3, the correction takes place thanks to a temperature model error (formula 2).

**3 INDEPENDENT CLAIMS 14 AND 16**

The objections raised above against method claim 1 likewise apply, *mutatis mutandis*, to the corresponding apparatus claim 14 and computer program claim 16.

**4 DEPENDENT CLAIMS 2-13, 15, 17**

Dependent claims 2-13, 15, 17 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

**5 REMARKS**

In claim 1 two separate and alternative possibilities are considered for correcting measured humidity values: a look-up table (in the application, "a data structure") and a mathematical function. Some of the dependent claims though (cl. 5, 8, 9) concern the presence of a data structure. It is considered that this reference to features of claim 1 which are optional and not essential for carrying out the invention can lead to a contradiction and can be a source of lack of clarity (Art. 6 PCT).